

A METHOD AND APPARATUS FOR
CONTROLLING THE TIMING OF A COMMUNICATION DEVICE

ABSTRACT OF THE DISCLOSURE

1
2 A system timer controls the timing at which a mobile
3 communication device communicates with a base station. The system timer
4 includes a sequencer that executes a set of instructions stored in a sequencer
5 RAM thereby causing a set of control signals to be supplied to a set of
6 components residing in the mobile communication device including, a set of
7 RF hardware devices, a microprocessor and a digital signal processor. The
8 microprocessor or the digital signal processor may alter the order in which the
9 instructions are executed by the sequencer thereby allowing the mobile
10 communication device to communicate in a dynamic multi-slot communication
11 environment. The system timer may include a timebase counter used to
12 synchronize the timing of the mobile communication device with the timing of
13 the base station. A value stored in the timebase counter is incremented at a
14 predefined rate and the value stored in the timebase counter wraps to zero upon
15 reaching a predefined value. The system timer may further include a set of
16 registers for storing a value that may be used to adjust the predefined value at
17 which the timebase counter wraps and for storing a value that may be used to
18 either increment or decrement the value stored in the timebase counter allowing
19 the system timer to remain synchronized with the base station despite
20 movement of the mobile communication device relative to the base station.